

3.
MATHEMATICAL MODEL
OF THE POLLUTION IN
NORTH SEA

Documentation & Data
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TECHNICAL REPORT
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INVENTAIRE DU PHYTOPLANCTON

de

Maria RABIJNS &
Jules ROBIJNS .

Laboratorium voor Syto-hydrobiologie (Prof.LOUIS-K.U.L.)

Aantal cellen per liter.

M03.300171.

	Peil	00m	06m	10m	15m
Chrysophyta					
Bacillarcophyta					
<u>CENTRALES</u>					
Melosira monoliformis		-	-	30	20
M. sulcata		460	230	6.300	4.840
Podosira Stelliger		10	-	30	-
Skeletonema costatum		110	-	230	460
Thalassiosira decipiens		180	140	1.980	310
Th. hyalina		-	-	40	-
Th. gravida		-	20	380	-
Th. rotula		-	120	1.600	-
Cylotella Meneghiana		-	-	80	40
Coscinodiscus excentricus		30	-	550	120
C.excentricus var.fasciculata		-	-	-	10

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Peil	00m	06m	10m	15m	
<i>C. lineatus</i>	-	-	-	20	
<i>C. radiatus</i>	90	130	730	350	
<i>C. granii</i>	-	-	10	-	
<i>C. centralis</i>	-	-	70	50	
<i>C. asteromphalus</i>	-	-	40	10	
<i>Actinoptychus undulatus</i>	-	-	440	150	
<i>A. splendeus</i>	-	-	10	-	
<i>Lauderia borealis</i>	220	110	800	220	
<i>Guinardia flaccida</i>	-	-	20	-	
<i>Rhizosolenia Stolterfothii</i>	40	50	100	60	
<i>Rh. shrubsolei</i>	2.380	1.980	6.020	2.830	
<i>Rh. setigera</i>	-	40	150	-	
<i>Rh. helietata f. semispina</i>	1.890	1.700	2.890	1.440	
<i>Chactoceros densus</i>	-	-	30	30	
<i>Chactoceros borealis</i>	140	40	430	20	
<i>Ch. decipiens</i>	2.340	3.270	4.550	2.680	
<i>Ch. curvisetus</i>	1.210	120	4.470	100	
<i>Ch. brevis</i>	-	-	200	60	
<i>Ch. debilis</i>	1.020	550	3.780	280	
<i>Ch. socialis</i>	2.840	4.980	31.500	-	
<i>Ch. radians</i>	37.220	39.740	48.020	18.120	
<i>Eucampia zodiacus</i>	120	20	1.000	230	
<i>Streptotheca thamesis</i>	10	-	40	80	
<i>Bellorocha malleus</i>	-	-	-	60	
<i>Dithylum Brightwelli</i>	50	30	80	30	
<i>Triceratium favus</i>	-	-	20	70	
<i>Tr. alternans</i>	10	20	70	30	
<i>Biddulphia sinensis</i>	-	-	-	10	
<i>B. regia</i>	-	-	60	-	
<i>B. mibilensis</i>	-	-	10	-	

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	Peil	00m	06m	10m	15m
Bidulphia rhombus		10	-	380	220
B. granulata		-	-	10	-
B. aurita		100	10	310	280
Cerataulina Bergonii		50	20	120	180
		=====	=====	=====	=====
Totalem		50.530	53.320	87.580	33.410

PENNALES

Grammatophora oceanica var. macilenta		50	-	-	-
Plagiogramma van Hourkii		-	-	80	-
Fragilaria oceanica		1.900	830	14.990	3.680
Raphoneis ampiceros		270	70	5.610	1.510
Asterionella japonica		260	150	2.350	770
Synedra ampiccephala		80	-	-	-
Cocconcis sp.		-	30	-	30
Achnanthes brevipes		-	-	-	30
Thalassionema Nitzschoides		3.140	1.770	8.180	3.450
Pleurosigma Normanii		60	70	40	30
Diploneis didyma		-	-	10	-
Diploneis sp.		10	30	50	20
Navicula palpebralis		10	-	-	-
N. sp.		290	100	300	90
N. sp.		1.820	3.500	4.680	1.830
N. membranacca		40	80	100	-
Epithemia sp.		-	-	-	10
Nitzschia closterium		970	820	650	430
N. SERIATA		40	-	-	30
Surirella gemma		-	-	80	-
		=====	=====	=====	=====
Totalem		8.940	7.450	37.120	11.910

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SILICOFLAGELLATAE

Distephanus speculum

Peil	00m	06m	10m	15m
	190	100	220	110
Totaal	190	100	220	110

PYRROPHYTA

Prorocentrum micans

Peridinium conocoides

Ceratium fusus

	-	-	10	-
	-	-	10	-
	-	-	-	10
Totaal	-	-	20	10

Chlorophyta

VOLVOCALAE

Asterococcus limneticus

80 - - 90

CHLOROCOCCALAE

Coelastrum microporum

480 - 120 220

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ALGEMEEN TOTAAL	60.220	60.870	125.080	45.760
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ROBIJNS Jules

Aantal collen per liter

MO4.310171

	Peil	00m	05m	10m	15m
<u>CHRYSTOPHYTA</u>					
<u>CENTRALES</u>					
Melosira moniliformis		40	-	-	-
M. sulcata		6.580	2.130	2.320	2.950
M. ambigua		40	-	-	-
Podosira Stelliger		20	-	-	-
P. hormoides		40	-	20	10
Skeletonema costatum		360	310	390	430
Coscinosira polychorda		60	190	-	-
Thalassiosira decipiens		260	300	770	440
Th. gravida		80	370	390	250
Th. rotula		160	-	70	70
Coscinodiscus excentricus		60	130	130	150
C. lineatus		-	20	-	-
C. radiatus		110	60	160	190
C. centralis		20	10	20	10
Actinopterychus undulatus		40	80	140	60
Aulacodiscus argus		-	-	-	30
Actinocyclus Ehrenbergii		-	-	10	-
Lauderia borealis		120	60	470	430
Leptocylindrus danicus		10	-	10	-
Guinardia flaccida		20	90	20	10
Rhrizosolenia delicatula		-	-	10	20
Rh. Stolterfothii		140	210	250	230
Rh. shrubsolei		2.230	1.940	1.820	2.220
Rh. hebetata f. semispina		440	410	440	400
Chactoceros borealis		260	360	600	130
Ch. teres		40	210	400	160
Ch. decipiens		480	2.280	2.450	1.860
Ch. curvisetus		320	560	1.150	1.340
Ch. debilis		470	330	1.090	1.050
Ch. socialis		440	5.450	16.110	5.600

MO4.310171

	Peil	00m	05m	10m	15m
Chactoceros radians		15.020	18.780	50.670	23.670
Ch. ceratosporum		-	-	60	-
Ch. vistulae		-	-	10	40
Eucampia zoodiacus		140	180	280	120
Dithylum Brightwelli		30	10	10	-
Triceratium alternans		-	10	-	-
Biddulphia regia		30	-	60	20
B. mobiliensis		-	-	50	-
B. rhombus		10	-	10	-
B. granulata		-	10	10	-
B. aurita		50	200	90	100
Cerataulina Bergonii		-	40	10	70
		=====			
TOTAAL		28.120	34.750	80.570	42.060
<u>PENNALES</u>					
Fragilaria creanica		460	980	1.280	610
Raphoneis amphiceros		340	190	470	720
Asterionella japonica		710	1.510	1.670	570
Synedra sp.		60	-	70	80
Thalassionema Nitzschoides		2.250	1.250	2.420	1.800
Achnanthes brevipes		-	10	-	-
Pleurosigma sp.		20	60	50	70
Diploneis interrupta		-	-	10	-
D. sp.		-	-	-	10
Navicula sp.		130	40	250	160
N. sp.		1.270	550	5.060	1.950
N. membronacea		10	-	-	-
Pinnularia sp.		-	-	20	10
Amphora sp.		-	10	-	-
Bacillaria paradoxa		210	-	650	-
Nitzschia sigma		-	20	-	-
N. closterium		780	1.100	1.360	770

MO4.310171

	Peil	00m	05m	10m	15m
Nitrschia apiculata	-	-	10	-	10
N. punctata	-	-	-	-	10
N. seriata	-	-	40	-	-
TOTAAL		6.240	5.770	13.310	6.780
<u>SILICOFLAGELLATAE</u>					
Distephanus speculum		50	170	80	230
TOTAAL		50	170	80	230
<u>PYRROPHYTA</u>					
Prorocentrum micans		10	-	-	-
TOTAAL		10	-	-	-
<u>CHLOROPHYTA</u>					
Kirchneriella obesa		480	-	330	-
Prasiola crispa		-	10	-	-
TOTAAL		480	10	330	-
2- geselige peervormige cel		-	-	50	50
ALGEMEEN TOTAAL		34.900	40.700	94.340	49.120